



# **Underground Storage Tanks (UST) Program**

## **Regulatory Update**

**May 21, 2009**

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Chief, Groundwater Branch  
Land Division



# UST Program Statutory Authority

## Federal

- Subtitle I of Resource Conservation and Recovery Act (RCRA) 1984

## State

- Alabama Underground Storage Tank and Wellhead Protection Act 1988





# State UST Regulations

## ADEM Administrative Code

- Division 6 Volume II
- Chapter 335-6-15



# UST Program

- Regulatory Requirements
- Compliance Evaluation
- Common Compliance Problems
- 2005 Energy Act (New Requirements)



# ADEM

## UST Program



### Underground Storage Tank System

- Tanks, Piping, Connected Equipment
- Contains Regulated Substances
- 10% or More Underground



# UST Program

## Regulated Substances

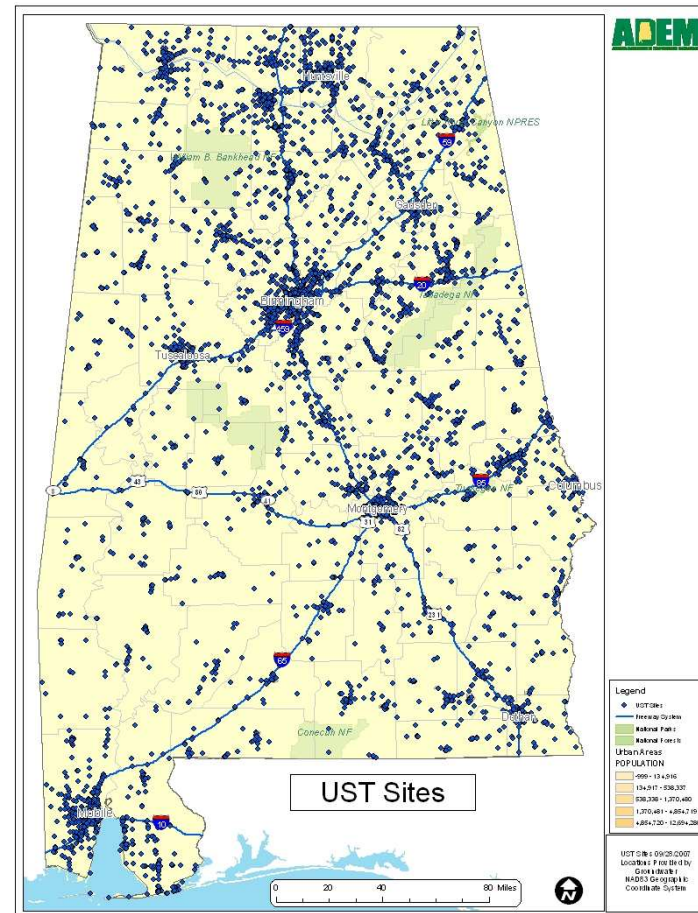
- Petroleum Products and Mixtures
- Hazardous Substances
  - CERCLA Section 101(14)





# Regulated Universe

- Regulated Tanks  
**16,723**
- Regulated Facilities  
**6,214**
- Tank Owners  
**3,300**





# Regulatory Approach

## UST Requirements Address

- **Prevention of**
- **Detection of**
- **Response to**

**Releases from UST's**





# Regulatory Requirements

- Notification / Registration
- Annual Regulatory Fee- \$30/tank
- Performance standards
- Routine testing and reporting
- Reporting and response to suspected releases



# ADEM

## Notification Requirements



**Must notify ADEM  
30 days prior to  
system**

- **Installation**
- **Modification**
- **Closure**



# Performance Standards

## Materials of Construction

- **USTs**
  - Fiberglass-Plastic Construction, or
  - Steel and Protected from Corrosion
  - Compatible with substance stored
- **Piping**
  - Non-metallic
  - Steel and Protected from Corrosion
  - Compatible with substance stored





# Performance Standards Leak Detection

## Tanks and Piping

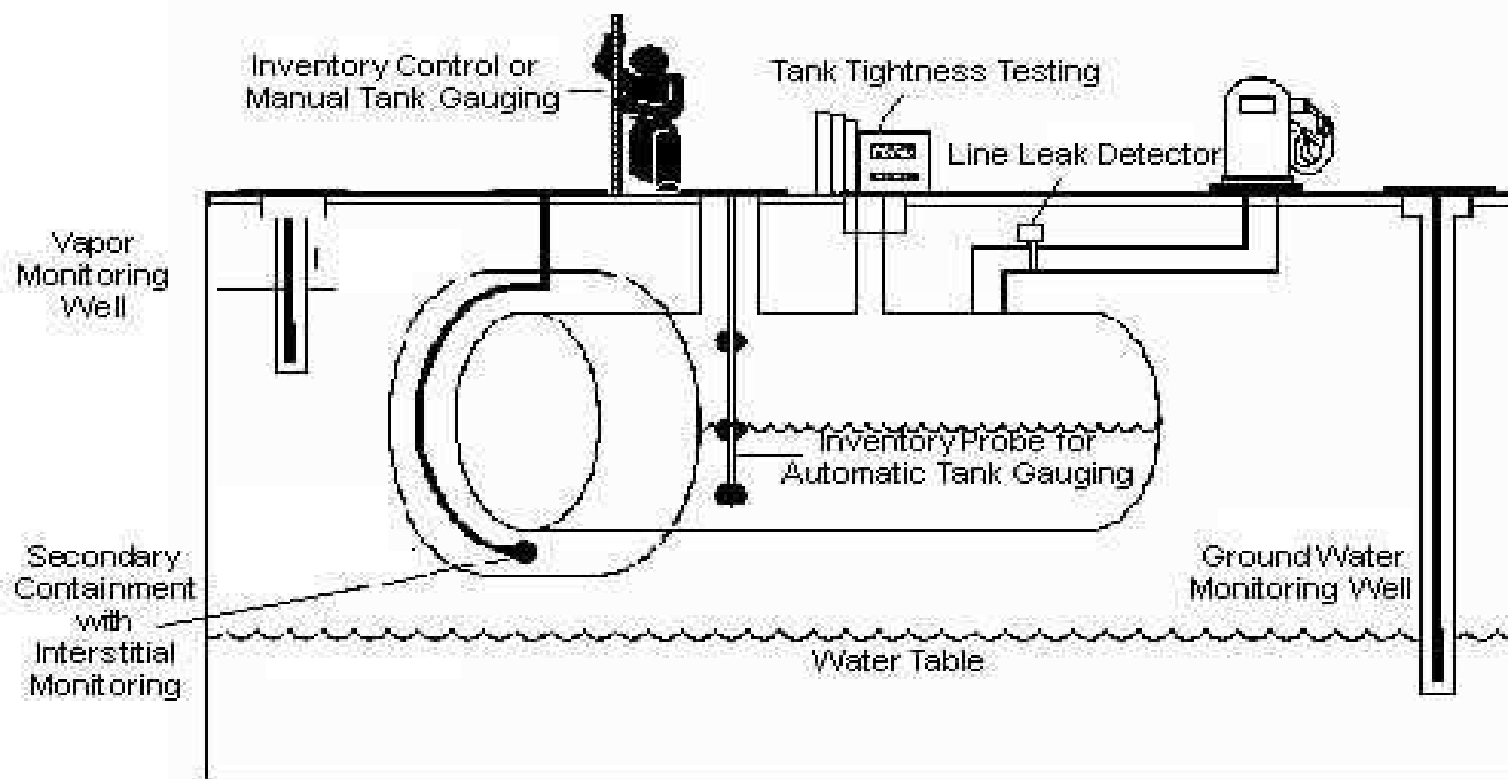
- **Installation before August 6, 2007**
  - 0.95 Probability of Detection
  - Several methods allowed
  - Monthly monitoring
- **Installation August 6, 2007 or after**
  - Secondary containment
  - Interstitial monitoring





# Performance Standards

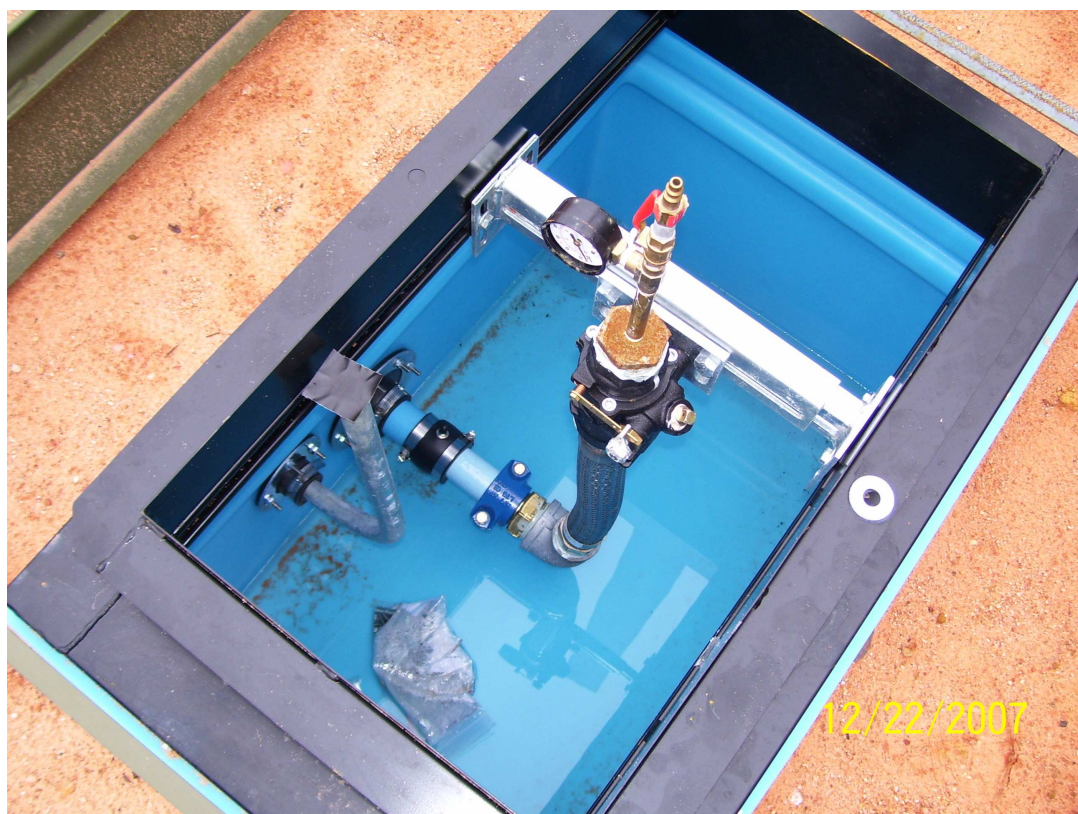
## Leak Detection





# Performance Standards

## Leak Detection



### Dispensers

**Installed/Replaced  
August 6, 2007 or  
after**

- Under Dispenser Secondary containment
- Liquid tight
- Compatible with substance stored



# ADEM

## Performance Standards Under Dispenser Containment





# ADEM

## Performance Standards Under Dispenser Containment





# Performance Standards

## Cathodic Protection

- Operated continuously
- Protect all metal components
  - Contact with the ground
  - Routinely contain fuel
- Observe NACE standards  
(National Association of Corrosion Engineers)



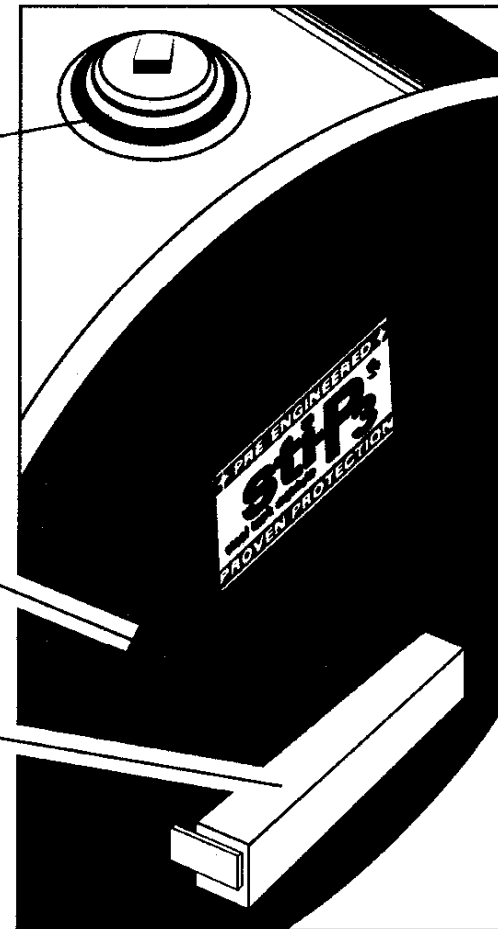
# ADEM

## *Galvanic* Cathodic Protection System

Electrical isolation  
(Bushings)

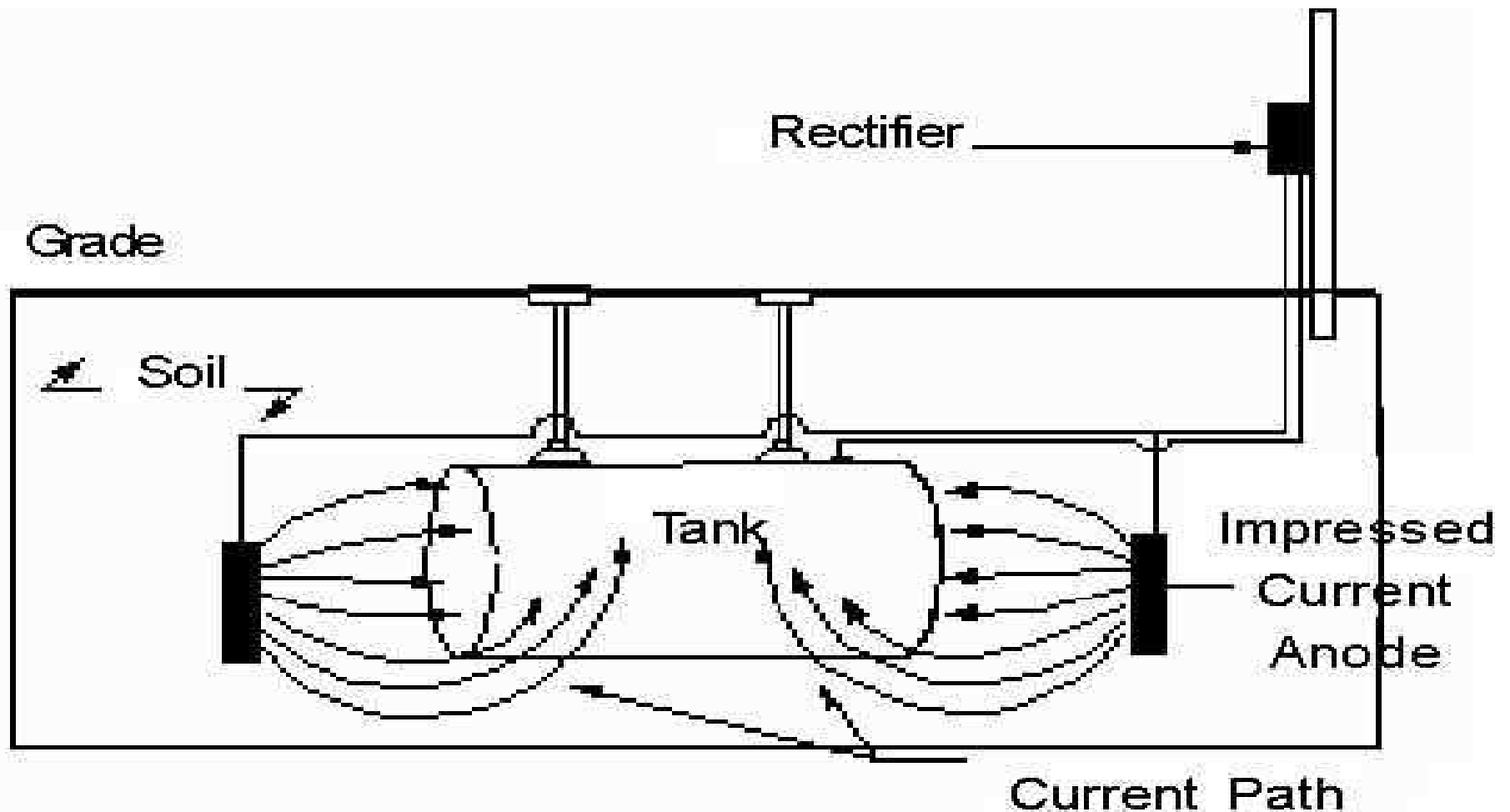
Dielectric protection  
coating

Cathodic protection  
(Anodes)



# ADEM

## *Impressed Current* Cathodic Protection System





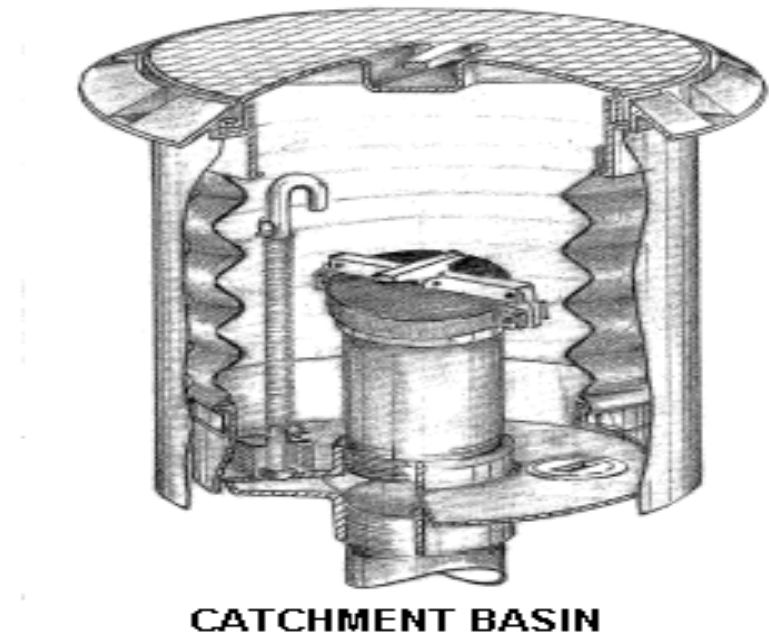


# Performance Standards

## Spill Prevention – Overfill Prevention

### Spill Catchment Basin

To contain the volume of the delivery hose

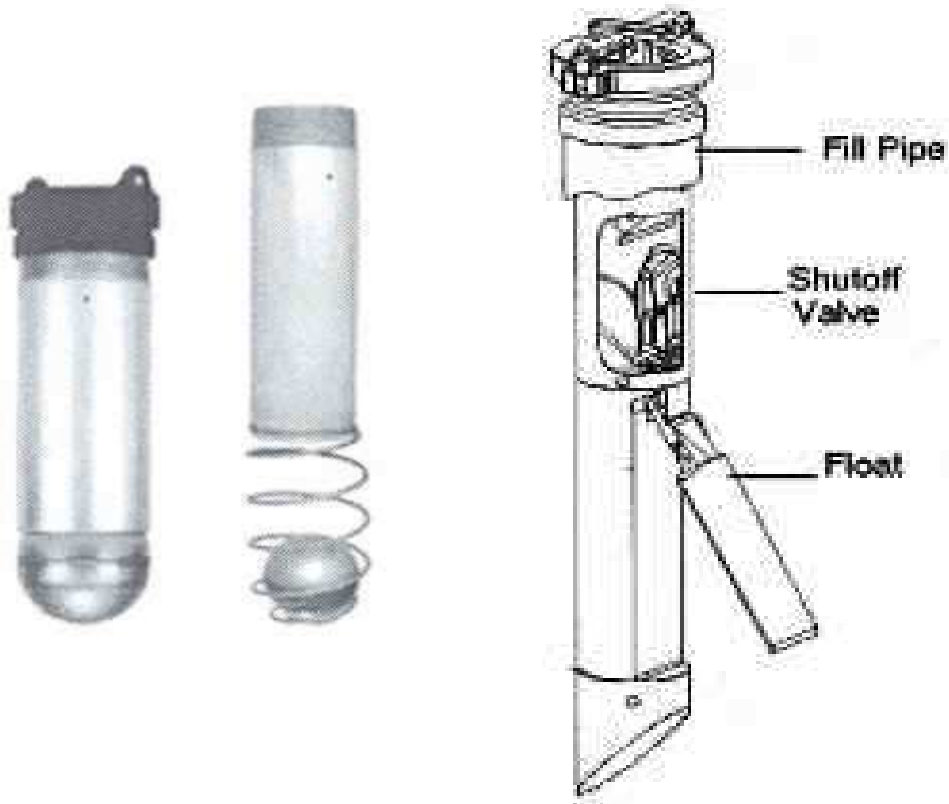






# Performance Standards

## Spill Prevention – Overfill Prevention



### Ball Float Valves, Flapper Valves

Activated by  
product level to  
prevent tank  
overfills



# **Regulatory Requirements**

## **Testing and Reporting**

- **Leak Detection**
- **Corrosion Protection**
- **Spill Catchment Basin**
- **Closure**
- **Suspected Releases**

## Testing Leak Detection



- Pressurized Piping - **Annual test**
- Leak Detectors - equipment that will shut off or restrict flow of product if a leak is detected – **Annual test**
- Sump Sensors – **Annual test**
- Suction Piping – No monitoring required if “safe suction”



# **Testing**

## **Corrosion Protection**

**Cathodic protection test required once every three years**

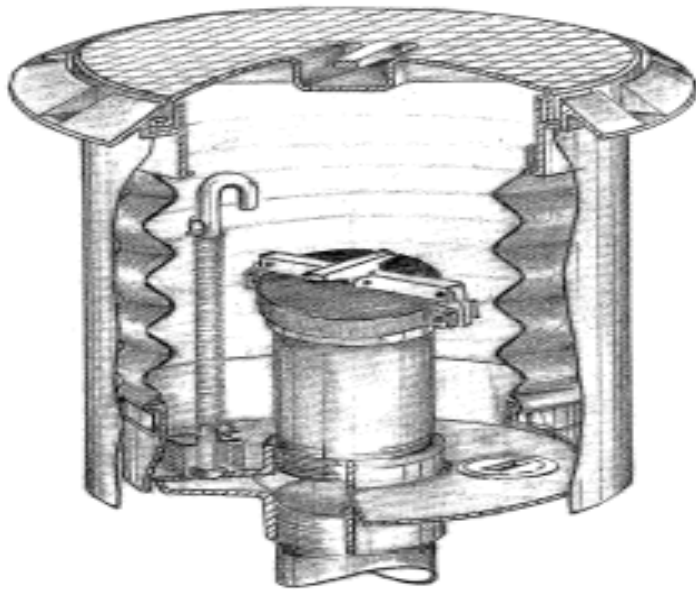
- Owner inspection of impressed current systems every 60 days**

# ADEM

## Rectifier



## Testing Spill Catchment Basins



CATCHMENT BASIN

- Annual testing required
- Results must be kept on file
- Effective August 6, 2007





# Reporting Leak Detection

- Annual Line Tightness Tests
- Statistical Inventory Reconciliation  
Annual Summary Report
  - Due January 31<sup>st</sup>
- Annual Leak Detector Tests



# Reporting Closure and Releases



- **Permanent Closure of a UST System**
- **Suspected releases must be reported within 24 hours.**



# Compliance Evaluation

- **Compliance Inspections**
  - 12 Inspectors Statewide
- **UST Database Record Reviews**





# **Compliance Evaluation**

## **Compliance Inspections**

- **Once every 3 years**
- **Annual inspections in Wellhead Protection Areas**
- **3132 inspections in 2008**



# **Compliance Evaluation**

## **UST Database Record Reviews**

- **Annual Fee Invoices**
- **Test Submittals**
  - **Reminder Notices**
  - **Notices of Violation**



## **Common Compliance Problems**

### **Failure to Test**

- **Cathodic Protection Systems once every 3 years**





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- **Cathodic Protection Systems once every 3 years**
- **Cathodic Protection Systems correctly**



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- **Cathodic Protection Systems correctly**
- **Pressurized Piping annually**



## **Common Compliance Problems** **Failure to Test**

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- **Cathodic Protection Systems correctly**
- **Pressurized Piping annually**
- **Leak Detectors annually**



## **Common Compliance Problems** **Failure to Test**

- **Cathodic Protection Systems once every 3 years**
- **Cathodic Protection Systems correctly**
- **Pressurized Piping annually**
- **Leak Detectors annually**
- **Spill Catchment Basins annually**

# **ADEM** Common Compliance Problems

- **Failure to submit Annual SIR Summary**





## **Common Compliance Problems**

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- **Failure to maintain ATG monthly test**



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- **Failure to submit Annual SIR Summary**
- **Failure to maintain ATG monthly test**
- **Failure to record CP rectifier readings once every 60 days**
- **Failure to remove water from sumps**
- **Failure to notify of change of ownership**

- **Secondary Containment**
  - ✓ **Implemented August 6, 2007**
- **Delivery Prohibition**
  - ✓ **Regulations effective April 25, 2008**
- **Operator Training**





# **Delivery Prohibition**

## **2005 Energy Act**

Prohibition of delivery or acceptance of product for non-compliant UST facilities

- **Penalty for owner and deliverer**
- **Regulations Effective April 25, 2008**
- **Implemented August, 2008**



# **Delivery Prohibition Reasons**

**Delivery prohibition may be imposed for failure of an owner to:**

- Install, operate and/or maintain cathodic protection, leak detection, under dispenser containment, or spill or overfill controls



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**Delivery prohibition may be imposed for failure of an owner to:**

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- Ensure compatibility of UST with product



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- Ensure compatibility of UST with product
- Perform required testing



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- Ensure compatibility of UST with product
- Perform required testing
- Pay regulatory fees





# **Delivery Prohibition**

## **Reasons**

**Delivery prohibition may be imposed for failure of an owner to:**

- Install, operate and/or maintain cathodic protection, leak detection, under dispenser containment, or spill or overfill controls
- Ensure compatibility of UST with product
- Perform required testing
- Pay regulatory fees
- Take corrective action for releases



# **Delivery Prohibition**

## **DP List**

**How does ADEM notify fuel delivery companies that a facility is prohibited from delivery?**

- Delivery Prohibition List on ADEM web site
- Delivery Prohibition List updated every Wednesday at 12:00 a.m.
- E-mails sent to delivery companies



# Delivery Prohibition

## 2005 Energy Act

Address [http://www.adem.alabama.gov/ftpoot/ust/ust\\_dp.htm](http://www.adem.alabama.gov/ftpoot/ust/ust_dp.htm)

Links

### Delivery Prohibition List

**You May Need To Click Your Refresh Button To View The Latest Version Of The List**

**It is illegal to deliver or to accept delivery of product to any of the USTs at a facility on this list.**

Facility Name	Facility Address	Owner	Acct. Number	County	Site ID No.	Date Delivery Prohibition Begins	Red Tag Pla
Quentin's Country Mart	1958 Highway 82 West, Prattville	Max Hand	22490	Autauga	15050	November 26, 2008; 12:00 a.m.	No
VIDA Quick Stop	1872 Co. Hwy. 19 N., Prattville	William Willis	22034	Autauga	15739	May 6, 2009; 12:00 a.m.	No
Clayton Convenience Store	182 N. Midway Street, Clayton	Steve & Cathy Caraway	19890	Barbour	12914	December 17, 2008; 12:00 a.m.	No
Bulk Plant - Clayton	3650 Highway 30, Clayton	Superior Oil	21481	Barbour	7860	March 18, 2009; 12:00 a.m.	No
Jame's Place	16051 Highway 431, Glencoe	RJ's Independent Gasoline	14199	Calhoun	3835	August 27, 2008; 12:00 a.m.	No
Pat's Handy Market	205 Highway 68, Collinsville	Patricia Jenkins	23093	Cherokee	3282	March 18, 2009; 12:00 a.m.	No
USA Petroleum #179	648-B Boll Weavill Circle, Enterprise	Kosar Younas	22404	Coffee	5406	May 6, 2009; 12:00 a.m.	No
Big M Minit Stop #1	1331 Broad Street, Selma	Michael Collins	13418	Dallas	8967	September 10, 2008; 12:00 a.m.	No
	533 E. Broad Street,	RJ's Independent					



# **Delivery Prohibition**

## **2005 Energy Act**

**ADEM may delay imposition of delivery prohibition in remote areas 180 days**

**ADEM may lift delivery prohibition during an emergency**

# ADEM

## Operator Training 2005 Energy Act



- Regulations required by August 8, 2009
- Operators must be trained by August 8, 2012.
- Three classes of operators
- Rulemaking to be initiated soon

[adem.alabama.gov](http://adem.alabama.gov)





## Contact Information

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